

Links to the Australian Curriculum

Table 1: Aspects of the Australian Curriculum: Digital Technologies and Mathematics version 9 Years 1 and 2 which may be addressed depending upon the task.

<p>Digital Technologies</p> <p><i>Achievement standard</i></p>	<p>By the end of Year 2 students show how simple digital solutions meet a need for known users. Students represent and process data in different ways. They follow and describe basic algorithms involving a sequence of steps and branching. With assistance, students access and use digital systems for a purpose. They use the basic features of common digital tools to create, locate and share content, and to collaborate, following agreed behaviours. Students recognise that digital tools may store their personal data online.</p>
<p><i>Strand</i></p> <p><i>Sub-strand</i></p>	<p>Digital Technologies Knowledge and understanding</p> <ul style="list-style-type: none"> Digital systems Data representation
<p><i>Content descriptions</i></p>	<ul style="list-style-type: none"> identify and explore digital systems and their components for a purpose AC9TDI2K01 represent data as pictures, symbols, numbers and words AC9TDI2K02
<p>Year 1 Mathematics</p> <p><i>Achievement standard</i></p>	<p>By the end of Year 1, students connect number names, numerals and quantities, and order numbers to at least 120. They demonstrate how one- and two-digit numbers can be partitioned in different ways and that two-digit numbers can be partitioned into tens and ones. Students partition collections into equal groups and skip count in twos, fives or tens to quantify collections to at least 120. They solve problems involving addition and subtraction of numbers to 20 and use mathematical modelling to solve practical problems involving addition, subtraction, equal sharing and grouping, using calculation strategies. Students use numbers, symbols and objects to create skip counting and repeating patterns, identifying the repeating unit.</p> <p>They compare and order objects and events based on the attributes of length, mass, capacity and duration, communicating reasoning. Students measure the length of shapes and objects using uniform informal units. They make, compare and classify shapes and objects using obvious features. Students give and follow directions to move people and objects within a space.</p> <p>They collect and record categorical data, create one-to-one displays, and compare and discuss the data using frequencies.</p>
<p><i>Strand</i></p>	<ul style="list-style-type: none"> Statistics
<p><i>Year 1 Content descriptions</i></p>	<ul style="list-style-type: none"> acquire and record data for categorical variables in various ways including using digital tools, objects, images, drawings, lists, tally marks and symbols AC9M1ST01 represent collected data for a categorical variable using one-to-one displays and digital tools where appropriate; compare the data using frequencies and discuss the findings AC9M1ST02
<p>Year 2 Mathematics</p> <p><i>Achievement standard</i></p>	<p>By the end of Year 2, students order and represent numbers to at least 1000, apply knowledge of place value to partition, rearrange and rename two- and three-digit numbers in terms of their parts, and regroup partitioned numbers to assist in calculations. They use mathematical modelling to solve practical additive and multiplicative problems, including money transactions, representing the situation and choosing calculation strategies. Students identify and represent part-whole relationships of halves, quarters and eighths in measurement contexts. They describe and continue patterns that increase and decrease additively by a constant amount and identify missing elements in</p>

	<p>the pattern. Students recall and demonstrate proficiency with addition and subtraction facts within 20 and multiplication facts for twos.</p> <p>They use uniform informal units to measure and compare shapes and objects. Students determine the number of days between events using a calendar and read time on an analog clock to the hour, half hour and quarter hour. They compare and classify shapes, describing features using formal spatial terms. Students locate and identify positions of features in two-dimensional representations and move position by following directions and pathways.</p> <p>They use a range of methods to collect, record, represent and interpret categorical data in response to questions.</p>		
Strand	<ul style="list-style-type: none"> • Statistics 		
Year 2 Content descriptions	<ul style="list-style-type: none"> • acquire data for categorical variables through surveys, observation, experiment and using digital tools; sort data into relevant categories and display data using lists and tables AC9M2ST01 • create different graphical representations of data using software where appropriate; compare the different representations, identify and describe common and distinctive features in response to questions AC9M2ST02 		
Technologies Core concepts	<ul style="list-style-type: none"> • Data • Computational thinking 	Digital Technologies Core concepts	<ul style="list-style-type: none"> • Abstraction • Data representation
		General capabilities	<ul style="list-style-type: none"> • Digital Literacy • Literacy • Numeracy
Cross-curriculum priorities	<ul style="list-style-type: none"> • Sustainability[†] <p>[†] if waste-free options are explored</p>	Learning area or subject connections	<ul style="list-style-type: none"> • HPE

Table 2: Aspects of the Australian Curriculum: Digital Technologies version 8.4 F-2 which may be addressed depending upon the task.

Digital Technologies Achievement standard	<p>By the end of Year 2, students identify how common digital systems (hardware and software) are used to meet specific purposes. They use digital systems to represent simple patterns in data in different ways.</p> <p>Students design solutions to simple problems using a sequence of steps and decisions. They collect familiar data and display them to convey meaning. They create and organise ideas and information using information systems and share information in safe online environments.</p>
Strands	<p>Digital Technologies knowledge and understanding</p> <ul style="list-style-type: none"> • Representation of data <p>Digital Technologies processes and production skills</p> <ul style="list-style-type: none"> • Collecting, managing and analysing data
Content descriptions	<ul style="list-style-type: none"> • Recognise and explore patterns in data and represent data as pictures, symbols and diagrams (ACTDIK002) • Collect, explore and sort data, and use digital systems to present the data creatively* (ACTDIP003) <p>* If digital systems are not used only part of this content description is met.</p>

Key concepts	<ul style="list-style-type: none"> • data collection • data representation • data interpretation 	Key ideas	Thinking in Technologies <ul style="list-style-type: none"> • computational thinking
Cross-curriculum priorities	<ul style="list-style-type: none"> • Sustainability[†] [†] if waste-free options are explored	General capabilities	<ul style="list-style-type: none"> • Information and Communication Technology (ICT) Capability • Literacy • Numeracy

Safety considerations: In implementing projects with a focus on food, care must be taken with regard to food safety and specific food allergies that may result in anaphylactic reactions. Some states and territories have their own specific guidelines that should be followed. For further information see: <https://v9.australiancurriculum.edu.au/teacher-resources/understand-this-learning-area/technologies-technologies>

In what ways could a food-related data representation activity link to other subjects?

How could data representation be integrated in Health and Physical Education, Mathematics or Design and Technologies?



Figure 3: Pizza school lunch – Laptop lunches for kindergarten bento box by Melissa CC BY 2.0 Source: <https://www.flickr.com/photos/buzzymelibee/8719314950>



Figure 4: A sandwich in a plastic bag

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